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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,976	10/14/2003	Ismael A. Hernandez	SON-05-1522	7120

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EXAMINER	
HAUGLAND, SCOTT J	
ART UNIT	**PAPER NUMBER**
3654	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/685,976	HERNANDEZ ET AL.	
	Examiner	Art Unit	
	Scott Haugland	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-51* is/are pending in the application.

4a) Of the above claim(s) *1-11,19,23-32,36 and 44-51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-15,17,18,20-22,33-35 and 37-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 1-11, 19, 23-32, 36, and 44-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/31/05.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 recites the limitation "the circumferential direction" on line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-15, 17, 18, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams et al (U.S. Pat. No. 4,852,823).

Adams et al discloses a yarn winding tube having a peripheral wall 25 and a yarn catch insert 41 for insertion into an elongated hole 31 formed through the yarn winding tube. Hole 31 is considered to be elongated since its largest dimension in the horizontal direction in Fig. 2 is greater than its maximum vertical dimension. The yarn catch insert 41 has an inside surface (lower face 43 in Fig. 4), an outside surface (upper face 43 in Fig. 4), and a side surface (extending between faces 43). A portion of the side surface is positioned opposite a portion of a side surface of the hole when the insert is inserted into the hole to form a start-up groove between the portion of the side surface of the yarn catch insert and the portion of the side surface of the hole. A portion of the start-up groove is tapered in a circumferential of the tube and of the insert, e.g., the portion beginning at point 34 and upward in Fig. 2. The start-up groove tapers to a pinch point. The insert is made of plastic (col. 3, lines 40-41).

With regard to claim 14, note that the edge between the outside surface 43 of the yarn catch insert and the portion of its side surface is radiused (Fig. 4).

With regard to claim 20, the yarn catch insert 41 has a lower portion (any of the lower portions of the insert that engage the sides of the hole) having a width corresponding to the width of the hole in the tube and an upper portion (note the

rounded portion adjacent the top surface 43 of the insert in Fig. 4) having a width less than the width of the hole.

With regard to claim 21, the outside surface of the yarn catch insert is tapered radially inwardly adjacent to the start-up groove as a result of the rounded edges adjacent the inside and outside surfaces 43 (Fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al.

Adams et al is described above.

Adams et al does not disclose that the hole in the yarn winding tube is non-symmetrical.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the hole 31 of Adams et al non-symmetrical since it would have been clear that the hole need not have the precise shape shown in Adams et al and need not be symmetrical to perform its intended function.

Claims 37-40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunlap (U.S. Pat. No. 2,679,989) in view of either Powel et al (U.S. Pat. No. 4,901,941) or Adams et al.

Dunlap discloses a yarn carrier comprising a hollow cylindrical inner tube 25 and a hollow cylindrical outer tube 31 having a longitudinal axis parallel to a longitudinal axis of the inner tube and an inner diameter greater than the outer diameter of the inner tube.

Dunlap does not disclose holes formed along portions of the circumferences of the inner and outer tubes.

Powel et al teaches providing a tubular yarn carrier with a hole 25, 110 through the wall of the yarn carrier to facilitate severing of yarn to free a transfer tail.

Adams et al teaches providing a tubular yarn carrier with a hole 31 through a wall of the yarn carrier to receive a yarn catch insert 41 for retaining a yarn end on the carrier.

It would have been obvious to one having ordinary skill in the art to provide the yarn carrier of Dunlap with a hole entirely through the wall of the yarn carrier as taught by Powel et al to facilitate severing of a yarn end or as taught by Adams et al to receive a yarn catch insert to retain a yarn end on the yarn carrier. The resulting modified yarn carrier of Dunlap would have aligned holes in the inner and outer tubes.

With regard to claim 40, Dunlap appears to indicate that outer tube 31 is make of paper (col. 2, line 47; col. 3, line 55). In any case, it would have been obvious to make

the outer tube of paper similarly to the inner tube to form a light weight and inexpensive bobbin.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunlap in view of either Powel et al or Adams et al as applied to claims 37 and 40 above, and further in view of Qiu et al (U.S. Pat. No. 5,505,395).

Dunlap does not disclose that the composition of the paper of the outer tube varies along the thickness of the outer tube or that an inside portion of the outer tube is softer than an outside portion of the outer tube.

Qui et al teaches forming a paper tube for winding yarn of a paper composition that varies along the thickness of the tube. Softer, lower density layers 26, 28 are located in an inside portion of the paper tube. Harder, higher density layers 22, 24 are located in a outside portion of the tube.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the outer tube of the yarn carrier of Dunlap with a paper composition that varies along the thickness of the tube as taught by Qui et al to improve the strength of the tube.

Response to Arguments

Applicants' arguments filed 12/29/05 have been fully considered but they are not persuasive.

With regard to Applicants' remarks concerning the election of species requirement, it is noted that claims 19 and 36 may be subgeneric, but are not generic, i.e., do not read on all of the species.

Applicants argue that the start-up groove in Adams is not formed in the circumferential surface of the tube, but is formed in the axial end of the tube, that the circular hole in the tube is not extended and is not elongated in the circumferential direction, and that the insert in combination with the hole does not form a circumferentially directed tapered groove. However, the start-up groove is in the circumferential surface of the tube. The circumferential surface of the tube is recessed in the region of insert 41 to form the start-up groove. Claim 22 requires an elongated hole extending around a portion of the circumference of the tube. The hole 31 in Adams is elongated (it is not circular, but only has circular portions) and extends around a portion of the circumference of the tube. The side surfaces of the hole and insert are seen to be "extended" as this is a relative term. The extent of the surfaces is sufficient to form a yarn catch. The groove formed by the hole and insert is tapered in a circumferential direction of the insert and of the tube. E.g., as can be seen in Fig. 2, the width of the upper groove gets smaller from point 34 in the vertical direction (circumferential direction of the tube) in Fig. 2. The groove, also, tapers in a circumferential direction of the insert.

Applicants argue that Adams does not disclose a yarn winding tube including a non-symmetrical hole extending in a circumferential direction as recited in claim 33. However, claim 33 was rejected as being obvious from Adams and differences were

noted in the rejection above. The hole 31 in Adams does, however, extend in the circumferential direction of the tube and insert as well as in other directions. Similarly, holes 25, 110 in Powel extend circumferentially as recited in claim 37.

Applicants further argue that the hole in Powel is not in the tube, but in an end cap. However, Powel teaches providing aligned holes in a yarn carrier comprising inner and outer tubular members, the end cap constituting one of those tubular members. Claim 37 is directed to a yarn carrier having aligned holes.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjh
3/8/06

Kathy Matecki

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